

What is claimed is:

1. A printer which supports a power save mode and performs printing by accepting a print request from a client via a network, comprising:

5 packet monitoring means for monitoring packets flowing on said network, and for updating and storing a client-associated last receive time each time a packet is received from any client of said printer;

10 printer usage rate computing means for determining, by referring to said client-associated last receive time stored by said packet monitoring means, that any client from whose associated last receive time has elapsed a prescribed time is in an idle condition, and for computing a printer usage rate by summing past
15 average usage rates of clients that have been determined not to be in an idle condition; and

20 time setting means for setting, based on said printer usage rate computed by said printer usage rate computing means, the length of time allowed before a transition is made to said power save mode.

2. A printer as claimed in claim 1, further comprising means for forcing said printer to transition to a standby mode when said printer is in said power save mode and when said printer usage rate computed by said
25 printer usage rate computing means is higher than a predetermined value.

3. A printer as claimed in claim 1, wherein said time setting means determines the length of time allowed before the transition to said power save mode, by
30 determining a power save interval according to said printer usage rate and subtracting an elapsed time in a mode other than said power save mode from said power save interval.

35 4. A power save control method for use by a printer that supports a power save mode and performs printing by accepting a print request from a client via a network, comprising the steps of:

(a) monitoring packets flowing on said network, and updating and storing a client-associated last receive time each time a packet is received from any client of said printer;

5 (b) determining, by referring to said client-associated last receive time stored in said step (a), that any client from whose associated last receive time has elapsed a prescribed time is in an idle condition, and computing a printer usage rate by summing past
10 average usage rates of clients that have been determined not to be in an idle condition; and

(c) setting, based on said printer usage rate computed in said step (b), the length of time allowed before a transition is made to said power save mode.

15 5. A power save control method as claimed in claim 4, further comprising the steps of forcing said printer to transition to a standby mode when said printer is in said power save mode and when said printer usage rate computed in said step (b) is higher than a predetermined
20 value.

6. A power save control method as claimed in claim 5, wherein said step (c) determines the length of time allowed before the transition to said power save mode, by determining a power save interval according to said
25 printer usage rate and subtracting an elapsed time in a mode other than said power save mode from said power save interval.

7. A recording medium readable by a printer that supports a power save mode and performs printing by
30 accepting a print request from a client via a network, said recording medium having stored thereon a program for causing said printer to implement a power save control method comprising the steps of:

(a) monitoring packets flowing on said network,
35 and updating and storing a client-associated last receive time each time a packet is received from any client of said printer;

(b) determining, by referring to said client-associated last receive time stored in said step (a), that any client from whose associated last receive time has elapsed a prescribed time is in an idle condition, and computing a printer usage rate by summing past average usage rates of clients that have been determined not to be in an idle condition; and

(c) setting, based on said printer usage rate computed in step (b), the length of time allowed before a transition is made to said power save mode.

8. A recording medium as claimed in claim 7, wherein said power save control method further comprises the steps of forcing said printer to transition to a standby mode when said printer is in said power save mode and when said printer usage rate computed in said step (b) is higher than a predetermined value.

9. A recording medium as claimed in claim 7, wherein said step (c) determines the length of time allowed before the transition to said power save mode, by determining a power save interval according to said printer usage rate and subtracting an elapsed time in a mode other than said power save mode from said power save interval.

10. A program executable by a printer that supports a power save mode and performs printing by accepting a print request from a client via a network, wherein said program causes said printer to implement a power save control method comprising the steps of:

(a) monitoring packets flowing on said network, and updating and storing a client-associated last receive time each time a packet is received from any client of said printer;

(b) determining, by referring to said client-associated last receive time stored in said step (a), that any client from whose associated last receive time has elapsed a prescribed time is in an idle condition, and computing a printer usage rate by summing past

average usage rates of clients that have been determined not to be in an idle condition; and

(c) setting, based on said printer usage rate computed in step (b), the length of time allowed before a transition is made to said power save mode.

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